

**Amendments to the Claims and Listing of Claims**

In accordance with 37 CFR §1.116(b)(1), please cancel claims 6, 16, 17, and 22-27, without prejudice to their prosecution in a subsequent continuation application. The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (previously presented) An apparatus comprising:
  - a variable acoustic source acoustically coupled to a volume, the volume being divided into an air region and a fluid region, the fluid region having a fluid output;
  - a microphone acoustically coupled to the volume;
  - a first processor configured to receive a signal from the microphone, and further configured to determine a volume of the air region;
  - a fluid valve configured to allow an amount of fluid to exit the fluid region, the amount of fluid being associated with the determined volume of the air region; and
  - an atomizer coupled to the fluid output, the atomizer configured to aerosolize at least a portion of the amount of fluid to exit the fluid region.
2. (original) The apparatus of claim 1, further comprising a volume sensor configured to output a first signal associated with a volume of the aerosol, and wherein the amount of fluid to exit the fluid region is further associated with the signal associated with the volume of the aerosol.

3. (original) The apparatus of claim 1, further comprising a second processor configured to calculate a volume of the aerosolized fluid and configured to output a volume signal associated with the calculated volume, and wherein the amount of fluid to exit the region is further associated with the volume signal.
4. (original) The apparatus of claim 2, further comprising a second processor configured to receive the first signal, calculate a volume of the aerosolized fluid, and output a second signal associated with the calculated volume, wherein the amount of fluid is further associated with the second signal.
5. (original) The apparatus of claim 1, wherein the first processor is further configured to send a control signal to the fluid valve.
6. (original) The apparatus of claim 5, further comprising:  
a target region coupled to the fluid valve and in selective communication with an air tank through an air valve.
7. (original) The apparatus of claim 6, wherein the first processor is further configured to send a control signal to the air valve.
8. (canceled)

9. (original) The apparatus of claim 8, wherein the valve is in communication with an atomizer.

10. (previously presented) The apparatus of claim 9, further comprising:  
a light source and light detector, the detector configured to output a signal associated with light scattering from the aerosol;  
a flow rate sensor configured to output a signal associated with a flow rate of the aerosol; and  
wherein the calculation of the aerosol volume is associated with the output signal from the light detector and with the output signal from the pressure sensor.

11-14. (canceled)

15. (previously presented) An apparatus comprising:  
means for dispensing a first fluid;  
means for aerosolizing the first fluid in communication with the means for dispensing the first fluid;  
means for determining aerosol volume coupled to the means for aerosolizing the first fluid;  
wherein the means for dispensing the first fluid includes a means for metering a second fluid based on the signal associated with the aerosol volume, and further based on an acoustic property of the means for dispensing the first fluid.

16 - 18. (canceled)

19. (previously presented) A method comprising:

- metering a first fluid using an acoustic volume transducer;
- converting the first fluid to an aerosol;
- calculating a volume of the aerosol;
- receiving a signal associated with the calculated volume; and
- metering a second fluid using an acoustic volume transducer, the metering being based on the received signal.

20. (canceled)

21. (previously presented) A medium storing instructions to cause a processor to

- meter a first fluid using an acoustic volume transducer;
- convert the first fluid to an aerosol;
- calculate a volume of the aerosol;
- receive a signal associated with the calculated volume; and
- meter a second fluid using an acoustic volume transducer, the metering being based on the received signal.

22-27. (canceled)